THE RAMTOP

APRIL 1987

PUBLISHED BY THE
GREATER CLEVELAND SINCLAIR USERS GROUP

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EAST SIDE GROUP MEETS AT THE EUCLID SQUARE MALL
PLEASE NOTE THAT THE MAY EAST SIDE MEETING WILL BE AT 7:30, APRIL 24th!!! ←Please Note!
CONTACT: MAX SCHOENFELD (216) 371-1096

A short note to our friends from other newsletters and magazines. You are welcome to use any of our material, news, adds, or programs if YOU: (1) Tell where it came from (RAMTOP Cleveland, Ohio) and (2) The author's name that wrote the article. We would appreciate it if you would send us a copy of the newsletter that it appeared in. Unless otherwise notified we will do the same.

THANK YOU FOR YOUR INTEREST IN OUR NEWSLETTER !

THE TSU-BBS IS ALIVE

SYSOP:Chris Raynak PHONE:216-327-1099 PARAMETERS:7/1/0

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TIMEX/SINCLAIR NEWS & RESOURCES

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news/rumors

hardware software literature

APRIL 1987 by Andy Kosiorek

AMSTRAD TAKES ON BIG BLUE

AMSTRAD IN THE USA:

AMSTRAD INTERNATIONAL (USA) INC. set up shop in Chicago in January 1986. The first computer related product that they have marketed here was the PCW 8256 Word Processer - thru the Sears retail stores and other vendors. The machine comes with its own monitor, one 3" disk drive, and a dot matrix printer. Sears currently has this package on sale for $399.00 Sears also has the 3" disks, which will work in the Timex of Portugal (Zebra) disk FDD system

THE PC1512

Last autumn, in the UK, Amstrad introduced its PC Clone, the model PC1512. It has received favorable reviews in the Oct. '86 issue of PCW mag. and the Feb. 87 issue of BYTE.

Amstrad is now marketing the IBM compatible computer thru a distributer in Texas, VIDCO Inc. A local retail network now is being assembled. There should be several outlets, with the product in the Cleveland area shortly.

Amstrad has a full page add in the April issue of Family Computing. You can obtain literature and even purchase the machine mail order from Vidco. The phone no. is 1-800-237-3116.

The prices I was quoted over the phone are higher then what the machine is selling for in the UK, but once a dealer network is set up, competition may trim the amounts to a reasonable level. I hope to have a dealer demo a machine at a meeting later this year. There will probably also be one on display at the Indy ComputerFest

At present, Amstrad has no plans to market the Sinclair Spectrum in the US. If the Speccy Plus 3, with its 3" disk drive sells well in the UK, they may import it here, since Sears is already selling yhe 3" disks.

Technical details are discribed very well in the Byte Feb. issue, and Amstrads brochure.

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Amstrad continued--

Basically the low end model comes with 512K, one 5 1/4" drive, and monochrome monitor. The options then take you upword to twin drives, or hard disk, and color monitors. You MUST buy the monitor, as the computers power supply is built into it. Byte described the machine, as the lowest price quality clone available.

Standard with the machine is a mouse, real time clock, serial and parallel.ports, MSDOS 3.2, DOS Plus, & GEM graphics.

THE INDIANAPOLIS COMPUTERFEST

MAY 2 & 3RD.
HOLIDAY INN - NORTH
1-317-872-9790 for reservations.

Events:
- Approximately 24 seminars.
- Swap meet/flea market
- Many vendors and exhibits.

So far the following have said they will be there;

- A+ Computer Response
- Acme Electric Robot Co. (AERCO)
- Brice Road Pharmacy
- Computer Shopper Mag.
- CTM Magazine
- Time Designs Magazine
- Curry Computer
- Quantum Computing
- RMG Enterprises
- Knighted Computers
- Sharp's
- Thomas Woods
- Variety Sales
- Zebra Systems
- E. A. Brown
- Variety Sales
- Syncware News
- Byte Power
- Kurt Casby
- John Oligar
- Markel Enterprises
- A & J Microdrives
- Ed Gray
- Lemke Software
- Foote Software
- Russell Electronics
- JRC Software
- Mountaineer Software
- Hal-Tronix
- Russell Electronics

and at least six User Groups will have displays, ATSU, SLUG, SMUG, ISTUG, CATS, and of course the Greater Cleveland Sinclair Users Group.

If you can make it, this may be your last opportunity, as the Fest in '88 may be on the west coast. See you there..

****

```
1005 REM ********************
1006 REM                RLE DECODER U
SED WITH RLE COMPILED BASIC
1007 REM ********************
1008 REM FROM TIME DESIGNS 2-87
1020 CLEAR 39999: PRINT #4: LOAD
 "rle.decode"CODE 30000
1090 REM          LOAD
1100 CLS : GO SUB 8000
1110 CLS : RANDOMIZE USR 30000
1190 REM          SAVE
1200 INPUT #0;AT 0,0;"FILE NAME=
";: LINE N$: GO SUB 8500: CLS
1210 RANDOMIZE USR 31265
1220 GO TO 1200
8000 PRINT INVERSE 1;AT 4,4;"DO
YOU WANT TO:"
8005 PRINT '''''TAB 4;"1. LOAD FR
OM TAPE"'';TAB 4;"2. LOAD FROM D
ISK"'';TAB 4;"3. CATALOG": INPUT
 G: IF G<1 OR G>3 THEN GO TO 800
0
8010 IF G=1 THEN CLS : PRINT AT
10,8;"PLAY YOUR RLE TAPE": LOAD
 ""CODE 40000: RETURN
8020 IF G=2 THEN INPUT "WHAT IS
THE FILE NAME? ";N$;'"FROM DRIVE
 #? ";D: PRINT #4: LOAD N$CODE 4
0000: PRINT D: RETURN
8025 IF G=3 THEN INPUT "WHICH DR
IVE # ?";D: PRINT #4: CAT "";: P
RINT D: PAUSE 0: CLS
8030 GO TO 8000
8500 PRINT INVERSE 1;AT 4,4;"DO
YOU WANT TO:"
8555 PRINT '''''TAB 4;"1. SAVE TA
PE"'';TAB 4;"2. SAVE TO DISK"'';
TAB 4;"3. LOAD ANOTHER RLE FILE"
'';TAB 4.;"4. RETURN": INPUT G:
IF G<1 OR G>4 THEN GO TO 8500
8560 IF G=1 THEN CLS : PRINT AT
10,0;"PREPARE TO SAVE YOUR RLE F
ILE " : SAVE N$CODE 50000,6912:
RETURN
8570 IF G=2 THEN INPUT "TO WHAT
DRIVE # ?";D: PRINT #4: SAVE N$C
ODE 50000,6912: PRINT D: RETURN
8575 IF G=3 THEN GO TO 1025
8576 IF G=4 THEN RETURN
8580 GO TO 8500
9999 PRINT #4: SAVE "RLE" LINE 1
020:: PRINT #4: SAVE "rle.decode
"CODE 30000,1970
```

From Tom Simon

ONE OF THE MORE INTERESTING DEVELOPMENTS ON THE TIMEX SCENE HAS BEEN THE INTEREST IN DECODING OF RLE GRAPHIC FILES. RLE STAND FOR RUN LENGTH ENCODED GRAPHICS. THIS IS A SYSTEM WHICH IS USED TO PROVIDE A 256 BY 192 PIXEL DISPLAY. RLES WERE DEVELOPED ON COMPUSERVE TO PROVIDE A GRAPHICS STANDARD FOR DIFFERENT MACHINES. COMPUSERVE'S VIDTEX SOFTWARE HANDLES THESE FILES. THE SINCLAIR MACHINES DO NOT HAVE THE SOFTWARE TO VIEW THE PICTURES ON LINE. I BELIEVE THAT JOHN RYAN WROTE THE FIRST PROGRAM FOR THE 2068 TO DECODE THE RLE FILES OFF LINE. IN A RECENT ISSUE OF TIME DESIGNS STAN LEMKE OFFERED A BASIC VERSION OF JOHN RYAN'S RLE DECODER TO BE USED WITH THE TIME MACHINE BASIC COMPILER. THIS DECODES THE SCREEN IN ABOUT 15 SECONDS OR SO. BESIDES APPEARING ON COMPUSERVE SOME BBS'S (INCLUDING THE TSU) HAVE RLE FILES TO DOWNLOAD.

IF YOU ARE A SUBSCRIBER TO COMPUSERVE, YOU CAN FIND THESE FILES BY TYPING IN GO HHA, GO PICS,GO TEN, GO MAPS GO ARTSIG OR GO CBPIX. YOU WILL HAVE A LARGE SELECTION TO CHOOSE FROM. IF YOU WANT TO HAVE YOUR OWN PICTURES DIGITIZED, COMPUSERVE WILL DO IF FOR YOU, FOR A FEE OF COURSE.

IF YOU ARE USING A 2068, ONCE YOU HAVE DOWNLOADED YOUR RLE FILE YOU SHOULD SAVE IT TO TAPE AS BASIC SO YOU CAN TRANSFER IT TO ANOTHER BOARD OR MEDIUM. DOING SO WILL PERMIT VARS ON THE 2068 TO BE SET CORRECTLY. THE RLE FILE MUST BE SAVED AS CODE TO BE READ BY THE DECODER. HOWEVER IN THIS FORM VARS IS NOT SET CORRECTLY AND THE FILE CANNOT BE LOADED INTO THE COMPUTER AND COPIED WITHOUT SOME FANCY FOOTWORK TO RESET VARS. IT IS BEST TO MAKE A NOTE OF HOW MANY BYTES THE FILE IS BEFORE LEAVING MTERM II. ALL RLE FILES USE WHITE INK ON BLACK PAPER SO THAT TO COPY THEM TO A PRINTER THE ATRIBUTES MUST BE INVERTED. THE LEMKE PROGRAM FROM TIME DESIGNS DOES THIS BY LOOKING FOR AN INPUT OF I. INPUT C AND YOU CAN COPY THE SCREEN TO THE 2040 PRINTER. S WILL TAKE YOU TO A SAVE MENU. I HAVE MODIFIED THE MENU TO WORK WITH MY DISK DRIVE WHICH USES THE PRINT #4: COMMAND TO ACCESS IT. THE FOLLOWING LISTING IS TO REPLACE THE UNCOMPILED BASIC OF THE LEMKE PROGRAM. YOU WILL ADD THIS TO THE PART TO BE COMPILED WHICH APPEARED IN THE FEBUARY ISSUE OF TIME DESIGNS. MODIFY THIS FOR YOUR MASS STORAGE SYSTEM BY INSERTING YOUR SYSTEMS COMMANDS ON THE APPROPIATE LINES. IF YOU HAVE A QL DAVE HOSHOR HAS PROVIDED A LISTING FOR A RLE RLE DECODER TO BE USED ON THAT MACHINE.

```
100 REMark ********** RLE DECODER **************
110 REMark Enter picture "device_filename"
120 DEFine PROCedure picture (file$)
130  LOCal col,lin,wid
140  MODE 4:WINDOW#1,512,256,0,0:PAPER#1,7:INK#1,0:CLS#1
150  WINDOW#1,411,184,53,11:PAPER#1,0:CLS#1
160  WINDOW#1,411,194,53,12:PAPER#1,0:INK#1,7:CLS#1:SCALE#1,193,-1,-1
170  WINDOW#0,409,30,53,226:PAPER#0,7:INK#0,0:CLS#0
180  OPEN #4,file$
190  IF lookfor("G") = 0 THEN RETurn
200  IF lookfor("H") = 0 THEN RETurn
210  col = 0: lin = 192
220  REPeat get_col_wid
230   IF EOF(#4) THEN EXIT get_col_wid
240   col = col + CODE (INKEY$ (#4,500)) -32
250   IF EOF(#4) THEN EXIT get_col_wid
260   wid = CODE (INKEY$ (#4,500)) -32
270   IF col + wid < 256 AND wid > 0
280    LINE col,lin TO col + wid,lin: col = col + wid
290   ELSE IF col + wid > 255 AND col < 255
300    LINE col,lin TO 255,lin
310    lin = lin -1
320    col = (col + wid) MOD 256
330    IF col > 0 THEN LINE 0,lin TO col,lin
340   ELSE IF col + wid > 255 AND col > 254
350    lin = lin -1
360    col = (col + wid) MOD 256
370    IF col > 0 THEN LINE 0,lin TO col,lin
380   END IF : END IF : END IF
390  END REPeat get_col_wid
400  CLOSE #4
410 END DEFine picture
420 DEFine FuNction lookfor(a$)
430  REPeat loop
440   IF EOF(#4) THEN RETurn 0
450   IF INKEY$(#4,30) = a$ THEN RETurn 1
460  END REPeat loop
470 END DEFine lookfor
```

NOTES

ARE YOU LOOKING FOR A PRINTER OR SOME OTHER EQUIPMENT BUT DON'T HAVE ENOUGH MONEY. IF YOU ARE DOWN IN COLUMBUS STOP BY VIDEO EXPRESS WHICH IS ALSO KNOWN AS ELECTRONIC ONE. THEY HAVE A LARGE SUPPLY OF USED AND RECONDITIONED EQUIPMENT. THEY ARE LOCATED ON COUNTRY CLUB DRIVE WHICH IS OFF MAIN ST., OFF 270 EAST.

INDIANAPOLIS NEWS.....
DOUG GILLISPIE WILL BE DRIVING HIS VAN TO INDIANAPOLIS AND WILL TAKE RIDERS THERE. CALL DOUG AT 881-6835. TOBY RADLOFF ALSO WILL DRIVE OR SHARE A RIDE TO INDIANAPOLIS. IF YOU ARE INTERESTED CONTACT THEM.

A PART-TIME FIDO BBS WILL BE ON LINE 24 HOURS ON THE WEEKENDS. IT IS AIMED AT AMATEUR RADIO OPERATORS. CALL 216-867-6984 EITHER 300 OR 1200 BAUD.

TO THOSE WHO HAVEN'T HEARD OUR GROUP ORDER OF QLS FELL THROUGH. IF YOU HAD PLANNED TO ORDER ONE THROUGH THE GROUP, YOU ARE NOW ON YOUR OWN.

SO FAR THE LIST OF NON RUNNING PROGRAMS HAS BEEN QUITE SMALL. SURELY THERE ARE PEOPLE OUT THERE IN OUR GROUP AND OTHERS WHO HAVE HAD SOME EXPERIENCES WITH PROGRAMS THAT WOULD NOT LOAD ON A SPECTRUM MODIFIED 2068? SEND A POST CARD TO THOMAS SIMON, 615 SCHOOL AVE.,CUYAHOGA FALLS, OHIO 44221. WITH PROGRAMS YOU MAY HAVE PURCHASED OR KNOW OF THAT WILL NOT RUN ON OUR SYSTEM. OK?

THOSE WITH QLIGER SYSTEMS MAY HAVE RECIEVED A MAILER FROM BILL JONES CONCERNING HIS WORD PROCESSOR SMART TEXT. IT IS SUPPOSED TO HAVE MAIL MERGE FUNCTIONS AND TO BE COMPATIBLE WITH MOST PRINTERS. HE IS OFFEREING IT FOR $33. IS THERE ANYONE OUT THERE WHO CAN WRITE A REVIEW OF THIS SOFTWARE FOR US? FOR FURTHER DETAILS WRITE BILL JONES, GULF MICRO, 1317 STRATFORD AVE., PANAMA CITY, FLORIDA.

__QoLumn__

by Gabe Schaffer

Hello. This time there is a program from Gary Sprang (with modifications by yours truly) and some computer humor. I can always use ideas for a column, so if you want an explanation of a command or function, please write:

Gabe Schaffer
2599 Saybrook Rd.
Univ. Hts., OH 44118

COMPUTER HUMOR

I got these from (I think) the Jan. 1987 issue of Office Automation, and they got it from Open Systems. Here are some ways to convey feelings in the form of text:

```
:)  - I'm happy
:(  - I'm sad
:s  - I have mixed feelings
8)  - I'm wide awake
:o  - I'm surprised
(:o - I'm VERY surprised
:p  - (tongue stuck out)
:9  - sounds tasty
:v  - I'm talking
```

...and for advanced users:

```
:-) - (fiendish grin)
:-( - (determined look)
```

NOTE: If you don't understand them, try rotating the page 90° clockwise. If that still doesn't help, then the printer can't reproduce the characters correctly.

PROGRAM

Here is a SuperBASIC listing of a clock program for the QL. It will only work in TV mode. The program draws a clock face and moves the hands according to the QL's internal clock, which unfortunately is not very accurate because the QL doesn't have quartz to regulate the clock. The variables for the hands are:

Hand	Updated Variable	'Old' Variable
Second	x,y	ox,oy
Minute	xm,ym	oxm,oym
Hour	xh,yh	oxh,oyh

You can reset the clock with the QL commands SDATE (set date and time) and ADATE (adjust date and time) when the clock loses the correct time.

I modified the program to chime hourly (like a grandfather clock), to indicate either AM or PM, and to reposition the clock face on the screen.

Gary's program is first and my modified program second:

```
100 REMark graphic clock for Sinclair QL Superbasic
110 REMark by G. M. Sprang 3/5/87
120 PAPER 0:CLS:CLS#0:p2=PI*PI:SCALE 256,0,0
130 RESTORE
140 INK 7:CIRCLE 120,100,100
150 OVER 1
160 FOR n=1 TO 12:READ u,i:CURSOR u,i:PRINT n
170 DATA 156,42,192,60,210,90,200,120,165,143,116,152
180 DATA 70,144,33,121,21,90,36,61,67,43,110,35
190 OVER 0
200 ox=120:oy=100:oxm=120:oym=100:oxh=120:oyh=100
210 z$=DATE$:h$=z$(1 TO 11):AT 1,0:INK 7:PRINT h$
220 x$=DATE$:y$=x$(19 TO ):n=y$
230 x$=DATE$:IF x$(19 TO 20)=y$:GO TO 230
240 x=118+85*(SIN(n/9.5)):y=100+85*(COS(n/9.5))
250 INK 0:LINE 120,100 TO ox,oy:INK 7:LINE 120,100 TO x,y
260 l$=x$(16 TO 17):n=l$
270 xm=118+65*(SIN(n/9.5)):ym=100+65*(COS(n/9.5))
280 INK 0:LINE 120,100 TO oxm,oym:INK 3:LINE 120,100 TO xm,y
m
290 y$=x$(13 TO 14):n=((y$-12)*5)+(l$/12)
300 xh=118+45*(SIN(n/9.5)):yh=100+45*(COS(n/9.5))
310 INK 0:LINE 120,100 TO oxh,oyh:INK 5:LINE 120,100 TO xh,y
h
320 INK 7:LINE 120,100 TO x,y
330 ox=x:oy=y:oxm=xm:oym=ym:oxh=xh:oyh=yh
340 GO TO 220
```

In the following listing of the modified version, new or altered lines are indicated with an arrow:

```
  100 REMark graphic clock for Sinclair QL SuperBASIC
► 120 PAPER 0:CLS:CLS#0:SCALE 256,0,0
  130 RESTORE
► 140 INK 7:CIRCLE 120,115,105
  150 OVER 1
► 160 FOR n=1 TO 12:READ u,i:CURSOR u,i-8:PRINT n
  170 DATA 156,42,192,60,210,90,200,120,165,143,116,152
  180 DATA 70,144,33,121,21,90,36,61,67,43,110,35
  190 OVER 0
► 200 ox=120:oy=100:oxm=120:oym=100:oxh=120:oyh=100:bell=0
► 210 z$=DATE$:h$=z$(1 TO 11):AT 1,0:INK 7:PRINT h$!!:IF z$(13
    TO 14))11:PRINT"PM":ELSE PRINT"AM"
  220 x$=DATE$:y$=x$(19 TO ):n=y$
► 225 IF x$(16 TO )='00:00':bell=x$(13 TO 14):IF bell>12:bell=
  bell-12:ELSE IF bell=0:bell=12
  230 x$=DATE$:IF x$(19 TO 20)=y$:GO TO 230
  240 x=118+85*(SIN(n/9.5)):y=100+85*(COS(n/9.5))
► 250 INK 0:LINE 120,110 TO ox,oy+10:INK 7:LINE 120,110 TO x,y
  +10
```

Continued on PAGE 7

April Editorial

Hello again, Sinclair fans! I hope you are all doing great and computing at full blast! I for one have not been at the keys a lot due to a heavy work load. I also just got a new VCR and have been having a good time with that. Speaking of VIDIO, I am still working on getting the second part of the article about DIGITIZING a vidio. I bought a digital VCR to get a good pause for this reason. The article said that you need the frame to be steady for about 5 seconds.

The BIG thing this month is the INDY COMPUTER FEST!!! I WILL BE THERE! If any of you need a ride, see the article by Doug Gillespie in this issue. I will also have room for one or two people with luggage and equipment. I asked a truck driver about the time of travel and he felt that about 6 1/2 hours should be allowed. If you want a ride from me, call me at 216-661-4105 after 5pm.

I need to toss in a few lines about sending articles. I NEED ARTICLES! I hardly ever get an article on the 1000 and I KNOW that a lot of you have them! I will gladly put your article in the RAMTOP! You may send it in almost any form as long as I can cut it and paste it on an 8 X 11 inch sheet. (with 3/4" borders) I prefer articles on cassette using Tasword, but know this is not always possible or convenient.

++

PLEASE NOTE THAT THE MAY EAST SIDE MEETING WILL BE ON THE LAST FRIDAY OF APRIL!!! (APRIL 24th) PLEASE TRY TO BE THERE IF YOU PLAN TO GO TO THE INDY FEST! I'm sure that last minute items about the fest will be brought up.

++

I think that it is still somewhat of a mystery about the banquet Friday night since plans have changed several times. I for one would like to go, but I'm still not sure what is going on about the dinner. If any of you hear anything, let me know!

Have any of you had a problem with port conflicts with one or more pieces of hardware? I had a problem with my homemade printer interface and my Oliger disk system. If you have had a problem, call FREE NET and check out the bulletin I wrote about it. Till next month, TAKE CARE!!!

James G. DuPuy

Looking For A Few Good Sysops

Timelines BBS is looking for a few good Co-Sysops! I require at least 3 Co-Sysops to help in the Running of Timelines BBS.

I need one to Sysop the TS-1000 Files Section. One for the TS-2068, Spectrum Files Section and one for the Q.L. Files Section. These people will run their section and be responsible for what files are there and not there.

They also must take time to answer user questions of their sections users and to try to help others who have trouble being able to use Timelines Files Section.

What do they get in return? Two things, A big Headache and Unlimited Access so they get the job done.

If interested say so at the Club Meeting or leave a Comment for Sysop on Timelines BBS, Data No. 216-671-6922 from 10pm to 6am Nightly.

Timelines Sysop,
Robert Parish

IF YOU ARE GOING TO THE IND. COMPUTER FEST, PLEASE READ:

I am offering rides to Indianapolis. I have a large van and can take 12-15 people. This can save lots of gas money! I plan to leave when the majoity of people want to leave. I will return soon after the convention ends. Call or write as soon as possible so I can confirm leaving time. Anyone living between Cleveland and Indy (somewhere close to 71 or 70) is welcome! It's 311 miles to Indy and will take about 5-6 hours. It should cost about $5.00 round trip or less with more people plus you can sit back and enjoy the ride! I will pick everyone up at their home and drop them off.

It will be first come first serve, so Please call or write SOON! DOUG GILLESPIE 216-884-8835
5860 CALAMIE DR.
PARMA HTS., OH, 44130
There is plenty of room for luggage and computers.

If you would like to subscribe to the RAMTOP please fill out this form and send it to the listed address along with a check for: $15/Year or $7.50/ 6 mo. to become a member of our Group (Attend meetings, use library tapes Ect.) or: $12/Year or $6/ 6 months to receive the RAMTOP ONLY! Please make checks payable to the RAMTOP! (The phone # is only for our records!)

Please print! Enclosed: $_____ for 1 year__ / 6 months__

NAME: _____ PHONE: _____-_____-_____

We need your phone # for our records!

STREET: _____

CITY: _____ STATE: _____ ZIP: _____

Type of computer(s) and peripheral(s) you own: _____

_____

THANK YOU for your interest! Please send to:

Robert Parish, 12706 Leeila Ave., Cleveland, OH 44135

UPSIDE DOWN AND SIDEWAYS TOO!!

Some time ago the RAMTOP published an article on printing upside down, using the POINT function. You can also use this same POINT to print text sideways. The book, "The Complete Spectrum," contains a program to rotate a letter 90 degrees at a time, as follows.

With a bit of effort you can build on this program to print words in all four rotations. The fly in the ointment is that the upside-down part is literally upside-down like a mirror image, and not really rotated twice. Still it is an interesting project. I killed two birds with one stone with the following program.

Max Schoenfeld

```
 10 REM "fair 5"
 20 REM by Max Schoenfeld
 30 LET y=16
 40 FOR z=1 TO 5
 50 READ a$
 60 PRINT AT 0,0;A$
 70 LET x=60: LET y=y+14
 80 FOR b=0 TO 7: FOR a=0 TO 7
 90 IF POINT (a,175-b)=0 THEN G
O TO 110
100 PLOT x+b,y+a
110 NEXT a: NEXT b
120 PRINT AT 0,0;" "
130 DATA "N","O","R","T","H"
150 NEXT Z
160 LET y=114
170 FOR z=1 TO 8
180 READ a$
190 PRINT AT 0,0;a$
200 LET x=140: LET y=y-10
210 FOR b=0 TO 7: FOR a=0 TO 7
220 IF POINT (a,175-b)=0 THEN G
O TO 240
230 PLOT x-b,y-a
240 NEXT a: NEXT b
250 PRINT AT 0,0;" "
260 DATA "C","O","M","P","U","T
","E","R"
270 NEXT z
280 LET x=59
290 FOR z=1 TO 4
300 READ a$
310 PRINT AT 0,0;a$
320 LET x=x+15: LET y=16
330 FOR b=0 TO 7: FOR a=0 TO 7
340 IF POINT (a,175-b)=0 THEN G
O TO 360
350 PLOT x+a,y+b
360 NEXT a: NEXT b
370 PRINT AT 0,0;" "
380 DATA "R","I","A","F"
390 NEXT z
400 LET x=61
410 FOR z=1 TO 5
420 READ a$
430 PRINT AT 0,0;a$
440 LET x=x+12: LET y=113
450 FOR b=0 TO 7: FOR a=0 TO 7
460 IF POINT (a,175-b)=0 THEN G
O TO 480
470 PLOT x+a,y-b
480 NEXT a: NEXT b
490 DATA "C","O","A","S","T"
500 PRINT AT 0,0;" "
510 NEXT z
```

Continued from QoLumn

```
260 l$=x$(16 TO 17):n=l$
270 xm=118+65*(SIN(n/9.5)):ym=100+65*(COS(n/9.5))
280 INK 0:LINE 120,110 TO oxm,oym+10:INK 3:LINE 120,110 TO x
m,ym+10
290 y$=x$(13 TO 14):n=((y$-12)*5)+(l$/12)
300 xh=118+45*(SIN(n/9.5)):yh=100+45*(COS(n/9.5))
310 INK 0:LINE 120,110 TO oxh,oyh+10:INK 5:LINE 120,110 TO x
h,yh+10
320 INK 7:LINE 120,110 TO x,y+10
330 ox=x:oy=y:oxm=xm:oym=ym:oxh=xh:oyh=yh
335 IF bell>0:BEEP 10000,10:bell=bell-1
340 GO TO 210
```

THE FOLLOWING FORM IS FOR THOSE WHO ARE INTERESTED IN RECEIVING A LIBRARY TAPE. YOU MUST FILL THIS OUT AND RETURN IT IF YOU WANT A TAPE MAILED TO YOU! This form is for those of you that DON'T attend the meetings. There are 2 ways to get a copy of the programs in our library: 1- Send a C-90 with your return address and $1.00 (P&H) or 2- We will send you a tape that you can keep for $3.00. (Make checks payable to The RAMTOP)

Thank You for your support of our group!

****

* LIBRARY TAPE FORM *

NAME _____ PHONE ___-___-____
phone # is REQUIRED!

ADDRESS _____

CITY _____ STATE _____ ZIP _____

TYPE OF COMPUTER YOU OWN: 1000/ZX-81 __ /1500 __ /2068 __
check all that you have : QL __ OTHER _____

Do you have a DISK system: (type)_____
Plese note that we request that the form be filled out as completely as possible.

****

Mail the form along with your check ($1.00 or $3.00) to:
Dean Miller (Librarian)
29324 Park St.
Wickliffe, OH, 44092

+ It would be appreciated if you
+ send us any noncopyrighted soft-
+ ware!!! (Phone- 216-944-8630)

From:
THE GREATER CLEVELAND SINCLAIR USERS GROUP
James G. DuPuy (Editor)
6514 Bradley Ave.(Down)
Parma, Ohio 44129

TO:

FIRST CLASS MAIL